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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,625	07/27/2000	Robert G. Gann	10001227-1	1161

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Intellectual Property Administration
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EXAMINER

SAFAIPOUR, HOUSHANG

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 01/30/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/626,625

Applicant(s)

GANN, ROBERT G.

Examiner

Houshang Safaipoor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8 and 10-20 is/are rejected.
- 7) ☒ Claim(s) 5 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Applicant's amendment filed on October 27, 2003, has been entered and made of record.

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7, 8 and 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saund et al. (U.S. Patent No. 5,760,925) and further in view of Breimer (U.S. Patent No. 4,513,319).

Regarding claim 1, Saund et al. discloses a look-down image acquisition system which consist of a digital camera with internal optics and array of photosensors that convert optical image data into electrical signals (col. 5, line 51 through col. 6, line 18). Although Saund et al. discloses calibration system 14 with calibration marks 15 on the surface of the platform 8 (col. 8, lines 24-61), Saund et al. does not explicitly disclose a calibration area within the look-down imaging system. Breimer discloses a camera with both internal and external test patterns to produce correction information for correction with minimal error (col. 1, line 47 through col. 2, line 16). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to combine Breimer's device with that of Saund et al., because, the

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combination would form a look down imaging apparatus with calibration area within the device in the proper position.

Regarding claim 2, Breimer discloses that the internal test pattern within the camera is present in the optical path between a lens system and pick up arrangement of the camera (col. 1, lines 58-61). Breimer further discloses digital lens memory containing correction information for optical focusing (col. 3, lines 31-41). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to combine Breimer's device with that of Saund et al., because, the combination would form a look down imaging apparatus with calibration area within the device in the proper position and focus.

Regarding claim 3, folding the optical path of light reflected from scanned area is well known and routinely practiced in the art (Official Notice). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to fold the optical path in combined Saund and Breimer's device, because, folding the optical path would reduce the size of the apparatus..

Regarding claim 4, Saund et al. and Breimer both disclose illumination source for illuminating the calibration area (Saund fig. 1, Breimer col. 2, lines 10-16).

Regarding claim 7, arguments analogous to those presented for claim 1 are applicable to claim 7.

Regarding claim 8, Saund et al. discloses the digital imaging device of claim 7 further comprising a scan head (fig. 1).

Regarding claim 10, Saund et al. discloses the digital imaging device of claim 8 wherein said scan head includes:

sensor for imaging an original image placed substantially below said look-down digital imaging device (fig. 1); and

lens for focusing reflected light from said original to said sensor (fig. 1).

Regarding claim 11, Saund et al. discloses the digital imaging device of claim 10 wherein said sensor is a linear sensor (col. 6, lines 6-18).

Regarding claim 12, Saund et al does not discloses the digital imaging device of claim 7 wherein said look-down digital imaging device is operable to achieve an in-focus scan of said calibration area for calibration of said look-down digital imaging device. Breimer discloses such a device (please refer to arguments under claim 1).

Regarding claims 13 and 14, arguments analogous to those presented for claim 3 are applicable to claims 13 and 14.

Regarding claim 15, arguments analogous to those presented for claim 1 are applicable to claim 15.

Regarding claim 16, Saund et al. discloses high resolution linear sensor (col. 6, lines 6-18).

Regarding claims 17 and 18, arguments analogous to those presented for claim 1 are applicable to claims 17 and 18.

Regarding claim 19, arguments analogous to those presented for claim 3 are applicable to claim 19.

Claims 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saund et al. (U.S. Patent No. 5,760,925) and in view of Breimer (U.S. Patent No. 4,513,319) and further in view of Applicant's Admitted Prior Art (AAPA).

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Regarding claim 6, neither Saund et al. nor Breimer discloses the method of claim 1 wherein said adjusting step comprises at least one adjustment type selected from the group consisting of adjusting imaging hardware of said digital imaging device; adjusting imaging software of said digital imaging device; and adjusting imaging software of a computer device to which said digital imaging device is coupled. AAPA discloses such an imaging device (page 3, lines 8-21). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to include the adjustment features described in AAPA in combination of Saund and Breimer's device, for proper calibration and adjustment of the device.

Regarding claim 20, arguments analogous to those presented for claim 6 are applicable to claim 20.

Allowable Subject Matter

Claims 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipoor whose telephone number is (703)306-4037. The examiner can normally be reached on Mon.-Thurs. from 6:30am to 5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles, Sr. can be reached on (703)305-4712. The fax phone numbers for

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the organization where this application or proceeding is assigned is (703)872-9306 for regular and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-0377.

Houshang Safaipoor
Patent Examiner
Art Unit 2622
January 20, 2004


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